

Significant assays from line 16S were 0.18% Zn from 308mE, 0.21% Pb, 0.34% Zn from the breccia at 420mE, and 0.22% Pb from the section 460-470mE.

These assays indicate that the soil anomalies were due to minor mineralisation in the prospective section between the Red Hills rhyolites and the black shale-sediment horizon to the west.

Two picked samples with pyrite-chalcopyrite mineralisation, from the 1N adit on line 4S (sample 22009) and from line 33S (sample 22010), were fire assayed for Ag-Au to determine whether this style of mineralisation was sufficiently enriched in the precious metals to make the Red Hills rhyolites a viable target for a low-grade Ag-Au deposit. Both were poor in Ag-Au relative to Cu, and with low Cu results from previous exploration by Mt. Lyell in the early 1970's it was decided that this type of deposit was not worthy of exploration at Red Hills.

Three samples were taken from line 4S across Eastoe's zone of silicified volcanics. There were no significant assays.

## 2.1.5 Geophysics

### 1. Introduction

The geophysical approach to exploration on the Red Hills Grid in 1981-82 was based upon the belief that economic massive sulphide mineralisation would be significantly conductive. Downhole I.P. logging of DDH RH5 in 1976-77 (Walter, 1977) showed that the 3m massive sulphide lens had a much lower resistivity relative to the surrounding volcanics and test applied potential and MMR surveys in 1977-78 suggested that this contrast could be utilised to map the extent of the mineralisation (Howland-Rose, 1978).

A close-spaced applied potential survey and time domain E.M. survey were chosen to search for massive sulphide mineralisation in the prospective horizon between the Red Hills rhyolites and the black shale unit to the west.

### 2. Applied Potential

The applied potential survey was conducted over lines from 16S to 40S (see Table 6 in Appendix A for coverage details). Downhole current electrodes were placed in DDH RH5 at 196m (C3), to map the response from the massive sulphide lens, and at 130m (C2) and 50m (C1) to map the "background" response from the unmineralised volcanics and black shale respectively. Balanced "infinite" current electrodes were placed 1.2 km west of the RH5 collar and 1.5 km east of the RH5 collar. Stationary potential electrodes were placed 30.5m west of RH5 (P1) and for six repeated lines, 320m west of RH5 (P3). A.M.G. co-ordinates of the electrodes are given in Table C in Appendix A.

The survey was conducted by Scintrex Pty. Ltd. during December 1981. A wiring error on 20th December 1981, resulted in incorrect readings for lines 33S, 34S and 35S. These lines were repeated in January 1982, along with lines 29S, 32S and 36S to ensure sufficient overlap of data. The primary potential and chargeability values were read using a Scintrex IPR 8 receiver.